

**To:** Brown, Anthony R (RM[anthony.brown@bp.com])  
**Cc:** Jefferson, Jill[Jill.Jefferson@amecfw.com]; Greg Reller[gr@burlesonconsulting.com]; Cory Koger[Cory.S.Koger@usace.army.mil]; Chang, Kay SPK[Kay.Chang@usace.army.mil]; Hillenbrand, John[Hillenbrand.John@epa.gov]; Brown, Anthony R (RM[anthony.brown@bp.com]); Mr. Terry J. Moore[Terry.Moore@BP.com]; Dr. Arthur (Sandy) Riese PhD, PG[sriese@ensci-inc.com]; Lombardi, Marc (marc.lombardi@amecfw.com)[marc.lombardi@amecfw.com]; Grant Ohland - (gohland@ohlandhydrogeo.com)[gohland@ohlandhydrogeo.com]; Dana Barton[Barton.Dana@epa.gov]; Gary Riley[Riley.Gary@epa.gov]  
**From:** Deschambault, Lynda  
**Sent:** Tue 6/13/2017 3:38:51 AM  
**Subject:** FW: Leviathan Mine - 2017 Spring Monitoring

Dear Mr. Brown,

Thank you for the call and preliminary review of surface water collection program. It is EPA's understanding that ARC collected samples at locations near the landslide: SD 06, SD 07 SD 08 and SD 10 for lab analysis under amendment 11 last year. If field staff are available, EPA requests that ARC consider a resample of those locations during this high flow year, as an opportunity to compare information during this high wet year.

As discussed, the field sampling in the acid pond area will be utilized to inform understanding of acid mine drainage within the slide itself; and identify opportunities for responding to the acid water, rather than waiting for seepage to migrate through the slide and impact surface water. We look forward to receiving your analysis, along with the water balance, Conceptual site Model, and the Surface water discussion sections in the RI/FS.

Best Regards,

Lynda Deschambault

Environmental Scientist

USEPA Region 09

(415) 947-4183

Please be advised I may have limited access to email , therefore please be patient with any communication delays.

**From:** Lombardi, Marc [<mailto:Marc.Lombardi@amecfw.com>]  
**Sent:** Friday, June 02, 2017 5:26 PM  
**To:** Deschambault, Lynda <[Deschambault.Lynda@epa.gov](mailto:Deschambault.Lynda@epa.gov)>  
**Cc:** Jefferson, Jill <[Jill.Jefferson@amecfw.com](mailto:Jill.Jefferson@amecfw.com)>; Greg Reller <[gr@burlesonconsulting.com](mailto:gr@burlesonconsulting.com)>; Cory Koger <[Cory.S.Koger@usace.army.mil](mailto:Cory.S.Koger@usace.army.mil)>; Chang, Kay SPK <[Kay.Chang@usace.army.mil](mailto:Kay.Chang@usace.army.mil)>; Hillenbrand, John <[Hillenbrand.John@epa.gov](mailto:Hillenbrand.John@epa.gov)>; Brown, Anthony R (RM) <[anthony.brown@bp.com](mailto:anthony.brown@bp.com)>; Mr. Terry J. Moore <[Terry.Moore@BP.com](mailto:Terry.Moore@BP.com)>; Dr. Arthur (Sandy) Riese PhD, PG <[sriese@ensci-inc.com](mailto:sriese@ensci-inc.com)>; Grant Ohland - ([gohland@ohlandhydrogeo.com](mailto:gohland@ohlandhydrogeo.com)) <[gohland@ohlandhydrogeo.com](mailto:gohland@ohlandhydrogeo.com)>  
**Subject:** Leviathan Mine - 2017 Spring Monitoring

Lynda,

Attached is some information for our discussion on Monday.

Surface water delineation (for which the 2017 reconnaissance of springs was conducted) is being performed under the On-Property FRI Work Plan:

- Atlantic Richfield Company, 2010, On-Property Focused Remedial Investigation Work Plan, Leviathan Mine Site, Alpine County, California. Prepared by AMEC Geomatrix, Inc., August 11.
- Field parameters and flow were measured in 2011 and 2012. The results were presented in the 2011 and 2012 annual reports:
  - Atlantic Richfield Company, 2012, 2011 Remedial Investigation / Feasibility Study Data Summary Report , Leviathan Mine Site, Alpine County, California. Prepared by AMEC Environment & Infrastructure, Inc., August 3.
  - Atlantic Richfield Company, 2014, 2012 Remedial Investigation / Feasibility Study Data Summary Report , Leviathan Mine Site, Alpine County, California.

Prepared by AMEC Environment & Infrastructure, Inc., January 20.

- Figure 1 shows surface water delineation locations established and monitored in 2011 and 2012 and the new ones established in 2017.
- Figure 2-2 shows the mapped surface water occurrences in 2011. Tables 2-2 and 10-5 provide field parameter and flow measurements collected in 2011 and 2012, respectively. These results were used to inform the design of the surface water monitoring program.
- Figure 2 shows the surface water monitoring locations and the surface water delineation locations together.
- Because of the wetter than average winter, Atlantic Richfield thought it prudent to repeat the surface water delineation task.

Select seeps were sampled in 2016 as part of the surface water / groundwater interaction task:

- Atlantic Richfield Company, 2016, On-Property Focused Remedial Investigation Work Plan Amendment No. 11 – Task Sampling and Analysis Plan for Surface Water / Groundwater Interaction Investigation near Acidic Pond and Leviathan Creek, Leviathan Mine Site, Alpine County, California. Prepared by Amec Foster Wheeler Environment & Infrastructure, Inc., May 6.
- Samples for laboratory analysis were collected from SD-06, SD-07, SD-08, and SD-10 although SD-08 was dry in the fall. The final validated laboratory data are not yet available.

If you have any questions or comments please contact Tony Brown at (657) 529-4537 or [anthony.brown@bp.com](mailto:anthony.brown@bp.com).

Thanks,

Marc

**Marc R. Lombardi, CEM, PG**

Principal Geologist / Office Manager, Environment & Infrastructure Americas, Amec Foster Wheeler

10940 White Rock Road, Suite 190, Rancho Cordova, CA 95670, USA

D (916) 853-8903 M (916) 302-6326

[marc.lombardi@amecfw.com](mailto:marc.lombardi@amecfw.com) amecfw.com



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